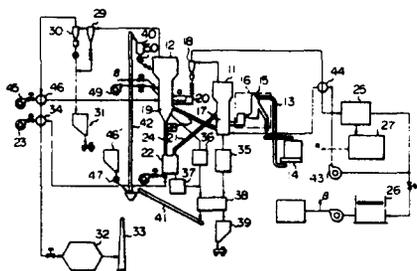


A process for recovering metal values from sulfide ores or concentrates by a fluid bed roast-reduction smelting-converting process which delivers to the reduction smelting furnace either a blend of dead roasted concentrate and green concentrate or a partially roasted concentrate, either feed mixed with a carbonaceous reductant and silica flux, and either feed containing only sufficient sulfur to produce a matte, in which the iron is present as metallic iron, and which has a sulfur deficiency of about 0% to about 25% with respect to base metals, and which is later converted to a low iron matte by blowing and slagging the iron with silica flux.

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METHOD FOR PYROLYZING

Yoshiaki Ishii; Tsutomu Kume; Naoyoshi Ando; Shosaku Fujinami; assigned to Agency of Industrial Science and Technology

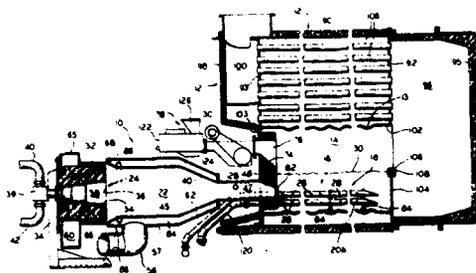


A method for safely and continuously pyrolyzing organic material such as contained in municipal waste is presented for use in a two-bed pyrolysis system primarily comprising a pyrolysis reactor and combustion reactor in which several different physical factors influencing the state of fluidization such as amount of sand in the system, circulation rate of the sand, pressure difference between the free boards of the two reactors and superficial velocity in the pyrolysis reactor, are comprehensively controlled or regulated so as to maintain the operating point of the system at substantially the center of the stable operating range. The feed rate of material charged into the system may also be regulated as required.

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FLUIDIZED BED COMBUSTION DEVICE

Robert A. Chronowski; Assigned to Aqua-Chem Inc.



A fluidized bed combustion device adapted for use with a boiler has an air distributor consisting of a row of generally horizontally oriented, apertured sparge pipes or tubes disposed in a bed of inert particulate material. The center pipes in the row are connected to a start-up burner for receiving heated combustion products and excess air and the outer pipes in the row are connected to selectively receive air through a separate delivery path. During start-up and low load conditions, only the center pipes are pressurized and so that only the center portion of the bed is